

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1. (original) A microdevice for supporting a flowing fluid, the microdevice comprising:

a substrate; and

a pair of generally parallel, spaced wall members on the substrate, wherein at least one of the wall members includes a pair of structures defining an opening.

Claim 2. (original) The microdevice of claim 1 wherein the pair of structures are beveled structures.

Claim 3. (original) The microdevice of claim 1 wherein the pair of structures are beveled structures, and wherein each of the beveled structures comprises a pair of inwardly tapering wall surfaces terminating in an apex.

Claim 4. (original) The microdevice of claim 3 wherein each of the tapering wall surfaces form an angle of about 2 degrees to about 20 degrees with respect to a side surface of an intermediate portion of the wall member.

Claim 5. (original) The microdevice of claim 3 wherein each tapering wall surfaces is curved.

Claim 6. (original) The microdevice of claim 1 wherein a distance between the pair of structures is about 50 microns to about 400 microns.

Claim 7. (original) The microdevice of claim 1 comprising three or more generally parallel wall members on the substrate.

Claim 8. (original) The microdevice of claim 1 wherein the spaced wall members define a fluid channel that contains a fluid with a laminar flow profile.

Claim 9. (original) The microdevice of claim 1 further comprising a cover disposed on the wall members.

Claim 10. (original) The microdevice of claim 1 wherein each of the wall members include an opening, and wherein the openings in the respective wall members are substantially aligned to form a slot.

Claim 11. (original) The microdevice of claim 1 further comprising a slide member, wherein the slide member is disposed on the substrate and is adapted to slide through the opening.

Claims 12. (original) An analytical assembly comprising:
the microdevice of claim 1; and
a probe having an end portion that is insertable between the spaced wall members.

Claim 13. (original) A microdevice comprising:
a substrate;
a plurality of wall members; and
a plurality of fluid channels, wherein each of the fluid channels is defined by adjacent wall members in the plurality of wall members, wherein each wall member comprises an opening that is formed by opposed beveled structures of the wall member and that communicates the adjacent fluid channels.

Claim 14. (original) The microdevice of claim 13 wherein the openings in the respective wall members are substantially aligned to form a slot.

Claim 15. (original) The microdevice of claim 13 wherein the openings in each of the wall members are structured to permit fluids having a laminar profile flowing on opposite sides of respective wall members from intermixing.

Claim 16. (original) The microdevice of claim 13 further comprising a cover on the wall members and a lid spaced from the cover.

Claims 17.-22. (canceled)

Claim 23. (original) An analytical assembly comprising:
a detection assembly comprising a plurality of detection devices; and
a microdevice comprising a plurality of wall members and a plurality of fluid channels, wherein each of the fluid channels is defined by adjacent wall members in the plurality of wall members.

Claim 24. (original) The analytical assembly of claim 23 wherein the plurality of detection devices comprise a plurality of probes.

Claim 25. (original) The analytical assembly of claim 23 wherein the plurality of detection devices comprise a plurality of optical detectors.

Claims 26. (original) The analytical assembly of claim 23 wherein the detection devices are disposed in the fluid channels in the microdevice.

Claims 27.-28. (canceled)